

## ABSTRACT

Using crossbred segregating populations of two-rowed and six-rowed barley cultivars, the row type of individual plants was precisely determined. The results indicate that row type is controlled by a single gene. In addition, it was discovered that molecular markers linked with this gene could be used to identify whether a test barley or related *Triticeae* plant is two-rowed or six-rowed. Furthermore, molecular markers can be used to identify Fusarium head blight resistance, which is linked with the two-rowed or six-rowed gene.

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